

CLAIMSWe Claim:

1. A construction equipment lockout control system, comprising:

- a) at least one receiver including an equipment inhibitor for disabling at least one function performed by said construction equipment;
- b) at least one portable transmitter operable by an operator associated with said construction equipment, including circuitry for generating a substantially continuous radio signal receivable by said receiver to enable the operation of said at least one function performed by said construction equipment;
- c) means for rendering said equipment inhibitor effective to disable the operation of said at least one function performed by said construction equipment and means for rendering said equipment inhibitor ineffective, so long as said radio signal from each of said at least one portable transmitters continues to be received by said receiver, substantially uninterrupted, such that whenever said radio signal from any of said at least one transmitters is not received by said receiver said equipment inhibitor is rendered effective; and
- d) said portable transmitter including means for broadcasting a stop signal upon actuation of an operator actuatable stop member forming part of said transmitter, wherein broadcast of said stop signal activates said equipment inhibitor to disable said at least one function.

2. The apparatus of claim 1, further comprising a plurality of transmitters, all of which simultaneously issue a substantially continuous radio signal, said receiver including means for detecting the interruption of any one of said simultaneously issued radio signals and operative to render said equipment inhibitor effective upon detecting an interruption in any one of said radio signals.

3. The apparatus of claim 2, further comprising a second set of portable transmitters located at a remote location, each of said transmitters generating a substantially continuous radio signal that is receivable by a relay/transmitter station, said relay/transmitter station issuing a continuous radio signal receivable by said receiver, so long as each of said remote portable transmitters maintains radio communication with said relay/transmitter unit.

4. The apparatus of claim 1, wherein each portable transmitter issues a substantially continuous signal having address data and lockout status data.

5. The apparatus of claim 4, wherein the substantially continuous signal is broadcast in regular periodic bursts.

6. A method for operating equipment, comprising:

- a) providing an equipment inhibitor which, when rendered effective, disables at least one function performed by said equipment;
- b) providing a radio receiver including means for rendering said equipment inhibitor effective under predetermined conditions;
- c) providing at least one portable transmitter worn by an equipment operator;
- d) using said transmitter to generate a substantially continuous radio signal that is receivable by said receiver to render said equipment inhibitor ineffective;
- e) causing said receiver to render said equipment inhibitor effective upon encountering an interruption in said radio signal from any one of said at least one transmitters;
- f) providing an operator actuatable member on said transmitter which, when actuated, causes said transmitter to issue an equipment inhibit command; and

g) upon receiving said equipment inhibit command from said transmitter, causing said receiver to render said equipment inhibitor effective.

7. A construction equipment lockout control system, comprising:

- a) at least one receiver including an equipment inhibitor for disabling at least one function performed by said construction equipment;
- b) a plurality of portable transmitters each operable by an operator associated with said construction equipment, each including circuitry for simultaneously issuing a substantially continuous radio signal simultaneously receivable by said receiver to enable the operation of said at least one function performed by said construction equipment;
- c) means for rendering said equipment inhibitor effective to disable the operation of said at least one function performed by said construction equipment and means for rendering said equipment inhibitor ineffective, so long as said radio signal from each of said portable transmitters continues to be simultaneously received by said receiver, substantially uninterrupted, such that whenever said radio signal from any of said transmitters is not received by said receiver said equipment inhibitor is rendered effective;
- d) said portable transmitter including means for broadcasting a stop signal upon actuation of an operator actuatable stop member forming part of said transmitters, wherein broadcast of said stop signal activates said equipment inhibitor to disable said at least one function.

8. An apparatus for disabling at least one function of construction equipment comprising:

- a) at least one radio transmitter worn by an operator of said construction equipment for transmitting a substantially continuous equipment enabling signal, said signal being transmitted in regular periodic bursts;
- b) a receiver for continuously receiving said equipment enabling signal from said at least one transmitter;

- c) an equipment lockout mechanism in communication with said receiver for disabling said at least one function;
- d) wherein said receiver activates said equipment lockout mechanism to disable said at least one function whenever an interruption in said signal occurs; and
- e) an equipment lockout activating member on said transmitter actuatable by said operator to transmit an equipment stop signal to said receiver, wherein said receiver activates said equipment lockout mechanism upon receipt of equipment stop signal.